

## Specific Features of Assessing Speech Reception and Perception in Hungarian Bilingual Children

Many researchers have studied the relationship between bilingualism and speech perception. Both simultaneous and sequential bilinguals perform similarly in speech perception. However, in the case of early sequential bilinguals, the perception of words spoken in L2 under difficult conditions showed weaker results than that of their monolingual peers (Rogers et al., 2006). In Hungary, the GMP Speech Perception and Comprehension Diagnostic Procedure is used primarily to assess speech perception, and speech reception is measured using the GOH test (Gósy, 1995, 2025). Speech perception is assessed under various challenging conditions: in one of the subtests sentences are covered with white noise, in another one speech is frequency-filtered, and the third one contains accelerated sentences. For the speech reception test, the GOH device and software retained only the most characteristic frequencies of the sounds in synthesized monosyllabic Hungarian words, while cutting out redundant frequencies. The test is standardized for monolingual children; there is no data available for bilingual cases. This raises the question of the software's applicability among Hungarian minorities living in neighboring countries or diasporas, or among bilingual families, which are becoming common in Hungary. In the present study, we seek to determine whether there is a difference in the speech perception and reception results of Hungarian bilingual and monolingual elementary school students. Our hypothesis is that the narrowed frequency range of Hungarian sounds of the GOH software makes the restoration of the sound more difficult for the bilinguals than for the monolinguals. We assessed the Hungarian speech perception of 30 third and fourth grade students (9-10 years old) with GMP Diagnostic Procedure, and their speech reception with the GOH device and compared it to the results of their monolingual peers. The participants were early sequential bilinguals, living in neighboring countries, in Romania and in Slovakia. The languages of the families are two different dialects of the Hungarian language. They are exposed to the official language of their countries in their environment. We also analyzed the acoustic characteristics of the spoken samples of the Hungarian dialects of the regions. We found that the narrowed frequency range of Hungarian sounds does not always carry sufficient information for the bilingual students to recognize the word. However, their perception of the words and sentences with full acoustic spectrum – despite the challenging circumstances – shows greater similarity to the performance of their monolingual peers. The results of our research confirmed our hypothesis, leading to the conclusion that multilingualism should be considered when children's speech perception is tested by tools developed for monolingual individuals. (417 words)

Key words: Speech reception, speech perception, bilingualism, assessment

### References

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